REMARKS

Claim 1 has been replaced by claim 18 to more clearly define the invention which relates to a method for determining an effort transmitted between a vehicle wheel and a wheel support. Original claim 1 was rejected over Dormegnie et al. which discloses in connection with Fig. 4, a dynamometric hub 9' mounted on a fixed wheel support (not shown), the hub carrying a suspension system, i.e., a wheel 5' and a tire 2'.

Dormegnie et al. discloses to determine an overall transfer effort for a reference suspension system (i.e., wheel + tire) by:

> (a) measuring acoustic pressure and vibrations produced by a reference suspension system which is excited while mounted on a vehicle, to produce system outputs (column 9, lines 24-39),
>
> (b) measuring a fixed support effort (i.e. system inputs) produced by the same reference suspension system which is excited while mounted on a fixed wheel support (column 9, line 40 to column 10, line 9), and then
>
> (c) multiplying the measured system outputs of step (a) times the measured system inputs of step (b) to determine an overall transfer function which can be used to predict the comfort performance of prototype suspension systems using the fixed wheel support.

The present inventors have improved on that prior art method, noting that the measurements made on the fixed wheel support in item (b) above do not reflect the effect of the vehicle suspension on the efforts transmitted by the tire-wheel assembly to the wheel support.

Thus, the presently disclosed invention is similar to that of Dormegnie et al., except that after the fixed support effort has been obtained by measurement in item (b) above, calculations are made as a function of the fixed support effort to obtain a suspended support effort which would be transmitted between the wheel and a wheel support having a degree of freedom of suspension in at least one direction (X, Y, Z) relative to the means of excitation (and explained on pages 11-23 of the present specification). It is that calculated suspension effort which would be multiplied by the measured system outputs (obtained by the acoustic and vibration measurements) in order to obtain an overall transfer function for the reference support system in item (c) above.

Thus, the major distinction of the presently claimed invention over Dormegnie et al. is that Dormegnie et al. obtains only measured system inputs, whereas the presently claimed invention obtains calculated system inputs (i.e., the suspended support effort). New claim 18 reflects that distinction by reciting, inter alia:

– measuring a fixed support effort between a wheel and a fixed wheel support (as in Dormegnie et al.), and then

– calculating, on the basis of such measured fixed support effort, a suspended support effort.

Accordingly, it is submitted that claim 18 and dependent claims 2-15 distinguish patentably over Dormegnie et al. As explained above, Dormegnie et al. does not disclose the step of calculating a suspended support effort on the basis of a measured fixed support effort. Thus, it is submitted that claim 18 and dependent claims 2-17 distinguish patentably over Dormegnie et al.

Independent claims 16 and 17 also reflect that difference over Dormegnie et al. Claim 16 is directed to a data processing device comprising an interface to enter a fixed support effort (representing a measured effort transmitted between a fixed wheel support and a wheel/tire that is being excited, and calculation means which calculates, on the basis of the fixed support effort, a suspended support effort signal representing an effort which would be transmitted between the wheel and a wheel support having a degree of freedom in suspension in at least one direction (X, Y, Z) relative to the excitation means.

Claim 17 is directed to a computer program comprising instruction codes which calculates a suspended support effort signal on the basis of a fixed support signal representing an effort which would be transmitted between a wheel and a wheel support having a degree of freedom of suspension in at least one direction (X, Y or Z) relative to an excitation means.

Therefore, it is submitted that claims 16 and 17 distinguish patentably over Dormegnie et al.

In light of the foregoing amendments and comments, it is submitted that the application is in condition for allowance.

Respectfully submitted,

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